<u>**AMENDMENTS TO THE CLAIMS**</u>

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1 - 8. (cancelled)

9. (currently amended) An image analysis apparatus for recognizing an object image included in a frame image, the object image including a reference cell having a predetermined shape and a plurality of corner cells assigned a color different from that of the reference cell, comprising:

a binarization processor which sets up a range of pixel values in the RGB format so as to translate the frame image into a binary bit representation;

a first detector which detects the reference cell in binary data for the frame image; and

a second detector which detects the corner cells in the binary data for the frame image, wherein

the binarization processor sets up a range of pixel values in the RGB format for detecting the reference cell and binarizes the frame image by extracting pixels within the range thus set up, whereupon the first detector detects the reference cell by referring to the resultant binary data, and

the binarization processor sets up a range of pixel values in the RGB format for detecting the corner cells and binarizes the frame ~~data~~ <u>image</u> by extracting pixels within the range thus set up, whereupon the second detector detects the corner cells by referring to the resultant binary data.

10. (currently amended) A method <u>performed by a computer</u> for recognizing an object image included in a frame image, the object image including a reference cell having a predetermined shape and a plurality of corner cells assigned a color different from that of the reference cell, comprising:

    setting up <u>by the computer</u> a range of pixel values in the RGB format for detecting the reference cell, <u>binarizing the frame image by</u> extracting pixels within the range thus set up, and detecting the reference cell in the frame image <u>by referring to the resultant binary data</u>; and

    setting up <u>by the computer</u> a range of pixel values in the RGB format for detecting the corner cells, <u>binarizing the frame image by</u> extracting pixels within the range thus set up, and detecting the corner cells in the frame image <u>by referring to the resultant binary data</u>.

11. (currently amended) A computer readable recording medium having embodied thereon a program product comprising computer readable codes for causing a computer to recognize an object image included in a frame image, the object including a reference cell having a predetermined shape and a plurality of corner cells assigned a color different from that of the reference cell, the program product comprising:

    a reference cell detecting module which sets up a range of pixel values in the RGB format for detecting the reference cell, <u>binarizes the frame image to</u> extracts pixels within the range thus set up, and detects the reference cell in the frame image <u>by referring to the resultant binary data</u>; and

    a corner cell detecting module which sets up a range of pixel values in the RGB format for detecting the corner cells, <u>binarizes the frame image to</u> extracts pixels within the range thus set up, and detects the corner cells in the frame image <u>by referring to the resultant binary data</u>.

12 - 21. (cancelled)

22. (currently amended) A card game system comprising:

a game card having a cell assigned a predetermined color;

a game mat assigned a color of ~~the same~~ a hue as the cell and provided with a gradation area in which brightness varies gradually;

an imager which acquires a frame image by capturing an image of the game mat and an image of the game card placed on the game mat;

a binarization processor which sets up a range of pixel values in the RGB format and translates the frame image into a binary bit representation;

an extractor which extracts the gradation area on the game mat, from binary data for the frame image; and

an adjuster which refers to binary data for the gradation area and accordingly adjusts the range of pixel values in the RGB format for binarization by the binarization processor.

23. (original) The card game system according to claim 22, wherein the outer edge of the gradation area is circular and brightness levels vary gradually and concentrically from high to low from the center of the gradation area toward the outer edge thereof.

24. (previously presented) The card game system according to claim 22, wherein the gradation area comprises at least an area with a higher brightness level than that of the cell of the game card and an area with brightness levels lower than that of the cell.

25. (currently amended) An image analysis apparatus for analyzing a frame image capturing an image of a game card having a cell assigned a predetermined color and an image of a game mat which is assigned a color of ~~the same~~ a hue as the cell and which is provided with a gradation area in which brightness varies gradually, comprising:

a binarization processor which sets up a range of pixel values in the RGB format so as to translate the frame image into a binary bit representation;

an extractor which extracts the gradation area on the game mat, from binary data for the frame image; and

an adjuster which refers to binary data for the gradation area and accordingly adjusts the range of pixel values in the RGB format for binarization by the binarization processor.

26. (currently amended) An image analysis method for analyzing a frame image capturing an image of a game card having a cell assigned a predetermined color and an image of a game mat which is assigned a color of ~~the same~~ a hue as the cell of the game card and which is provided with a gradation area in which brightness varies gradually, comprising:

setting up a range of pixel values in the RGB format so as to translate the frame image into a binary bit representation;

extracting the gradation area on the game mat, from binary data for the frame image; and

referring to binary data for the gradation area and accordingly adjusts the range of pixel values in the RGB format for binarization.

27. (currently amended) A computer readable recording medium having embodied thereon a program product comprising computer readable codes for causing a computer to analyze a frame image that captures an image of a game card having a cell assigned a predetermined color and an image of a game mat which is assigned a color of ~~the same~~ <u>a</u> hue as the cell and which is provided with a gradation area in which brightness varies gradually, comprising:

a translating module which sets up a range of pixel values in the RGB format so as to translate the frame image into a binary bit representation;

an extracting module which extracts the gradation area on the game mat, from binary data for the frame image; and

an adjusting module which refers to binary data for the gradation area and accordingly adjusts the range of pixel values in the RGB format for binarization.

28. – 34 (cancelled)